

definitely the vibrations of a piano-string by impulses from an electro-magnet supplied with an intermittent current of proper frequency, and to produce 'electrical music' by the simultaneous action upon a loud-speaking telephone of several currents of proper pitch and wave-form synthesized in the line-wire. If these last two inventions shall enjoy any considerable popularity they will inevitably influence, to a marked degree, musical ideas and philosophy.

E. D. PRESTON,
Secretary.

PHYSICS CLUB OF NEW YORK.

THE teachers of physics in secondary schools of New York City have formed an organization to promote efficiency in the teaching of physics. The more specific objects of the club will be to cultivate a personal acquaintance and interchange of thought among laboratory men; to secure the cooperation of the departments of physics in the colleges; to discuss matters of interest concerning laboratory methods, apparatus, new books and kindred matters.

The officers for the present year are: President, Frank Rollins; Vice-President, Albert C. Hale; Secretary, A. T. Seymour; Treasurer, S. A. Lottridge. The Executive Committee consists of the officers and Messrs. R. H. Cornish, B. M. Jaquish, G. C. Sonn. The membership is limited to 30. There are at present 29 members. The next meeting will be held at the Teachers' College, April 22, 1899.

A. T. SEYMOUR,
Secretary.

SUB-SECTION OF ANTHROPOLOGY AND PSYCHOLOGY OF THE NEW YORK ACADEMY OF SCIENCES.

THE annual meeting of the Sub-section was held on Monday, March 27th. Dr. Franz Boas was elected Chairman and Dr. Chas. H. Judd Secretary for the ensuing year. The following papers were presented: 'Notes on Chilcotin Mythology,' by Dr. Livingston Farrand; 'Zapotecan Antiquities,' by M. H. Saville and A. Hrdlicka; 'Recent Suggestions for a new Psychology,' by Dr. Charles B. Bliss.

CHAS. H. JUDD,
Secretary.

DISCUSSION AND CORRESPONDENCE.

'THE EVOLUTION OF MODESTY.'

TO THE EDITOR OF SCIENCE: Mr. Havelock Ellis, in his interesting study, 'The Evolution of Modesty,' in the current *Psychological Review*, regards sexual modesty, concealment physiological and anatomical, to be mainly founded in the fear of disgusting others. But wherein, we must ask, does such fear merit the term modesty? Does this kind of fear have any distinct quality? Is it a real species? And in any case is modesty a kind of fear? It appears to me that the fear of exciting disgust in others toward ourselves is, like fear of exciting anger, hatred or any other injurious emotion, not a distinct *genus* of emotion, nor even a species of fear. We have here a more subtle and complex fear than in dodging a stone, but social fears of others' mental attitudes toward ourselves, while they form perhaps a species of fear, yet the particular fear of disgust can hardly be considered as having any peculiar quality over against fear of hatred, and other such emotions. In tracing the history of modesty-actions, Mr. Ellis is tracing not the development of a new psychosis, but merely the development of social fear with reference to a new object, the producing disgust by exposure of the body. Excretory acts in general come to be regarded as disgusting, but if I refrain from spitting in public for fear of disgusting others this can hardly be termed modesty on my part.

Modesty as a really new and significant psychosis is not to be sought in mere objective modesty-actions of the sort which Mr. Ellis considers. We see this mere objective modesty in contrast with true subjective modesty in an incident which Miss Hapgood relates in 'Russian Rambles.' While staying at a country house she was invited by the ladies to go to the ladies' bathing pool, where the Russian ladies went in without costume, and she, to her reluctance, felt obliged to imitate them, since she saw that they plainly thought that the use of clothing at such a time could be only for the hiding of defects. The Russian ladies had no real delicacy or modesty, and had no conception of it, though they had a fear of disgusting. Real modesty as a distinct psychosis, as a regard for one's own feeling rather than for the feelings of others, resenting intrusion, calling for privacy, is a late

product of civilization. Modesty comes finally to be a feeling of reluctance to all vulgar publicity, either as to one's person or mind, a reluctance to all display, a delicacy and refinement, which is late born in evolution, and is, in psychical progress, destined to fuller and higher development, as *versus* the mere fear of disgusting, which, as Mr. Ellis shows, is in decadence in high civilization. Modesty as a mode of self-respect is quite distinct from respect and fear of others' opinions and feelings towards ourselves. Mr. Ellis, indeed, barely mentions (p. 145) modesty as a self-respect, but he seems to connect it with his general treatment. It is noteworthy that modesty should be a term which denotes actions to conceal both defects and excellences, but that real modesty is at bottom as psychosis, a personal delicacy about social conspicuousness, and may have no real psychic connection with either of the other phases, that is, it proceeds not from sensitiveness to one's own excellences or defects as viewed by others, but merely a general reluctance to have one's personality become in any wise open to public gaze and prying.

The other psychic basis of modesty-actions which Mr. Ellis mentions, namely, fear of losing in some way sexual attractiveness, may be objected to on the same ground as not real psychic modesty.

If modesty were as closely related to fear as is claimed we should expect similarity of expression, but the blush of modesty is the converse of the pallor of fear. The most brazen, unmodest woman fears exposure so far as it is disgusting to others. The blush is not the expression of fear, but of self-attentive embarrassment, and secondarily the expression of real psychic modesty. We cannot, with Mr. Ellis, relegate the influence of darkness in restraining modesty to the blushing being thereby concealed; but at least the more obvious and primary factor is that modesty and modesty-action is originally a concealment from the eyes of others, and if the eyes of others are concealed by darkness this action and feeling naturally disappear. Mr. Ellis does not explain how shame is distinct from modesty. Certainly, so far as shame is modesty shocked, it is psychologically modesty.

Our impression on the whole, then, is that while the origin and evolution of modesty-actions are as precautions against causing disgust, yet modesty as distinctive psychic quality which exhibits the same reactions is far later in date.

HIRAM M. STANLEY.

LAKE FOREST, ILL., March 7, 1899.

TRANSMITTED CHARACTERISTICS IN A WHITE ANGORA CAT.

TO THE EDITOR OF SCIENCE: The following observations furnished me by Dr. S. F. Gilbert, of Elysburg, Northumberland county, Pa., concerning his white Angora cat, which I examined a short time since, may be of some interest to those working upon the subject of the transmission of acquired characters.

The cat of Dr. Gilbert is of the white Angora breed. The parentage of this cat is unknown. The mother-cat, referred to above, has the right eye blue and the left yellow, and is about three years old. The kitten of this cat is eight months old, male, and has the right eye yellow and the left eye blue, just the reverse of the mother. The kitten is subject to fits. The fits, as Dr. Gilbert describes them, are of a violent, excitable kind; the kitten running aimlessly about, falling down and scratching, or striking with its feet. These fits, which have occurred twice, lasted about ten minutes. The father of Dr. Gilbert's kitten is a large mongrel with white breast and face, the other parts of the body being zebra-colored.

The mother has had seventeen kittens, eleven of which were white, two having different colored eyes. Two of the kittens were deaf, and in general the breed seems to be very tender and difficult to raise.

JOHN W. HARSHBERGER.

UNIVERSITY OF PENNSYLVANIA.

OSMOTIC SOLUTIONS.

TO THE EDITOR OF SCIENCE: A letter in your columns shows that I ought to explain a special feature of the solutions used for determining osmotic pressure. In my recent paper on 'Physiological Osmosis' (SCIENCE, Vol. IX., p. 206) I cited a one-per cent. solution as having one part of sugar in one hundred parts of